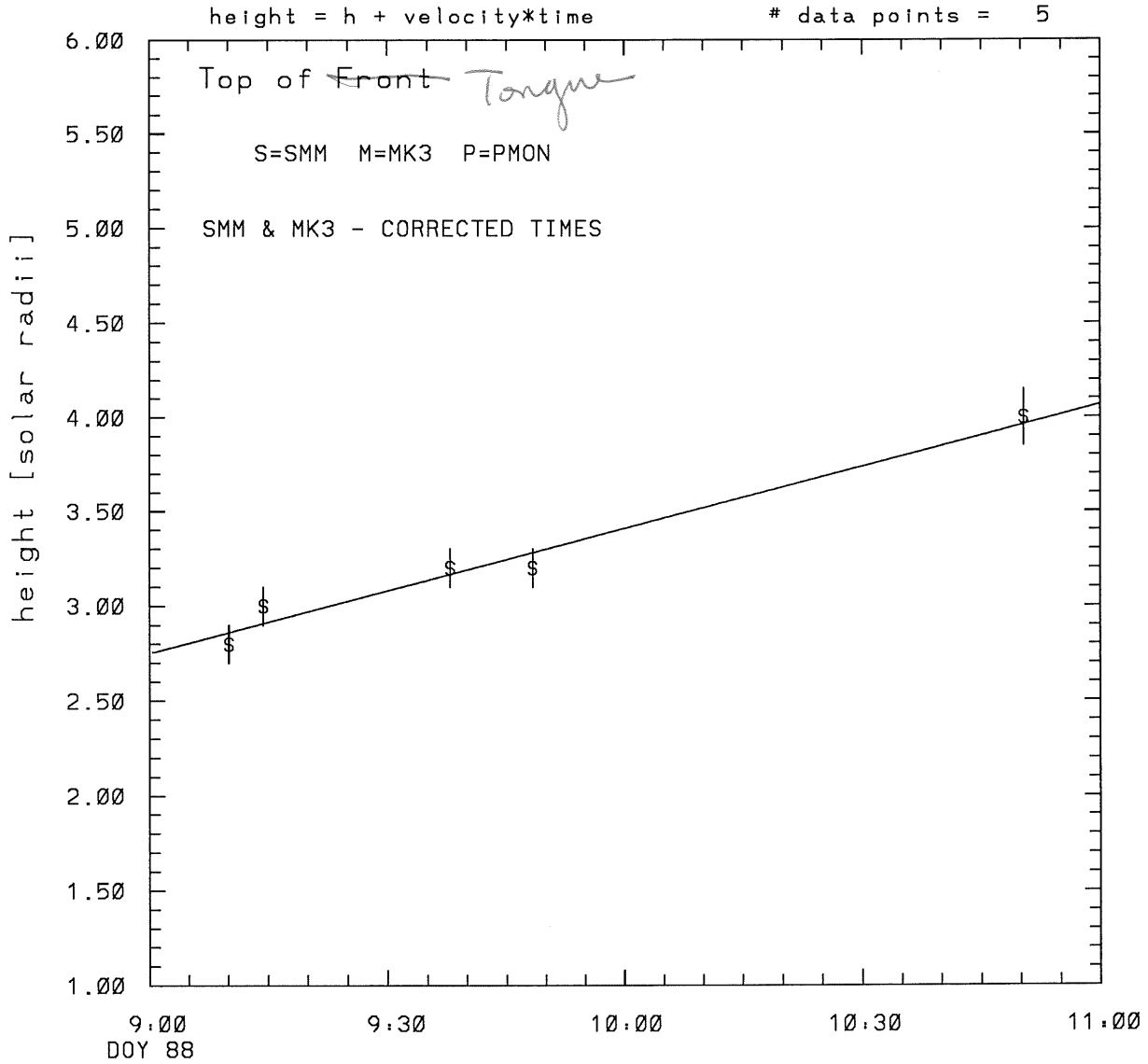
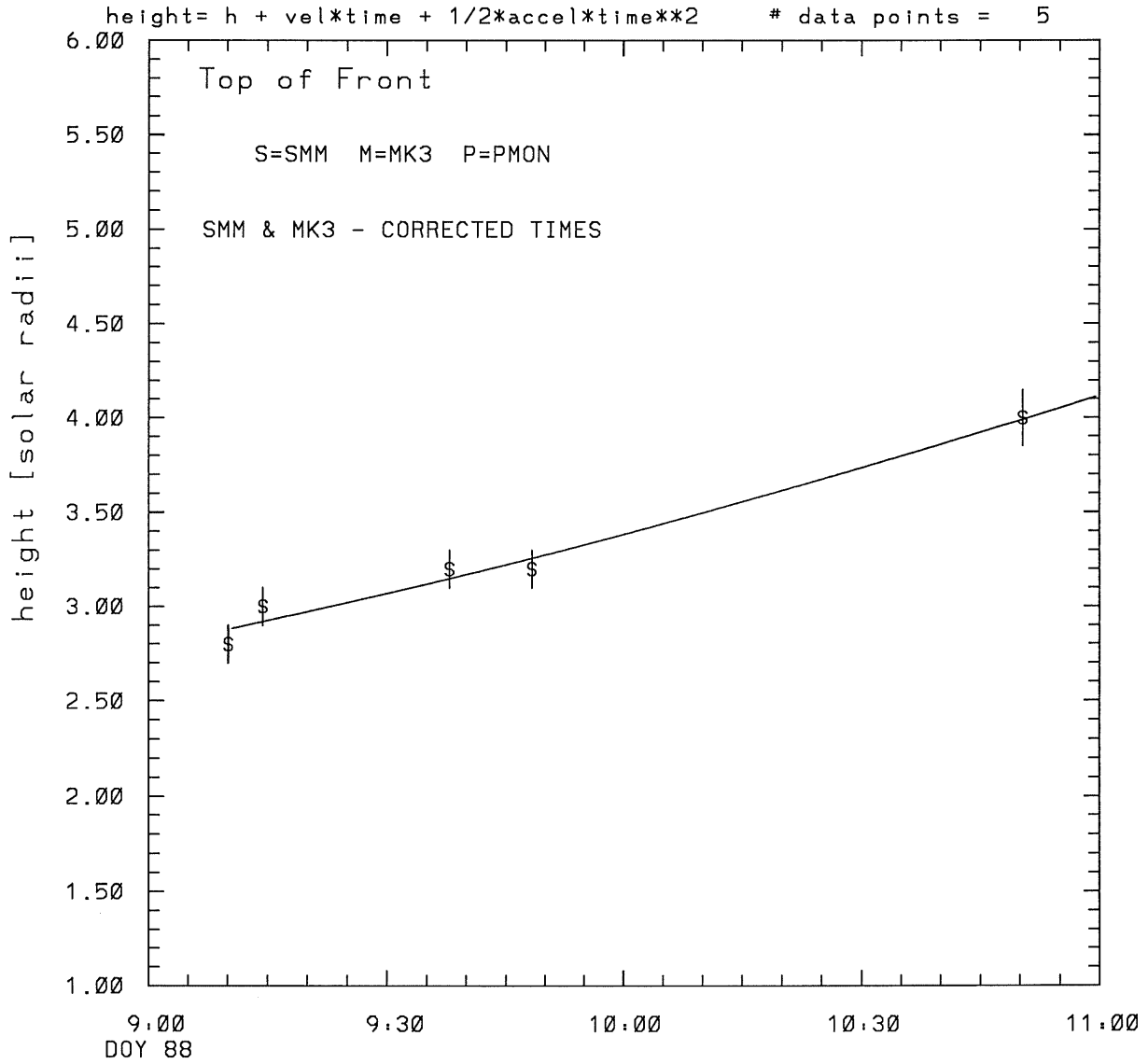


SMM C/P 1980 DOY 88 225 +/- 0 degrees



tstart=DOY 88 6.22 +/- 5.1 [min.]
radial velocity= 127. +/- 14. [km/sec]

SMM C/P 1980 DOY 88 225 +/- 0 degrees

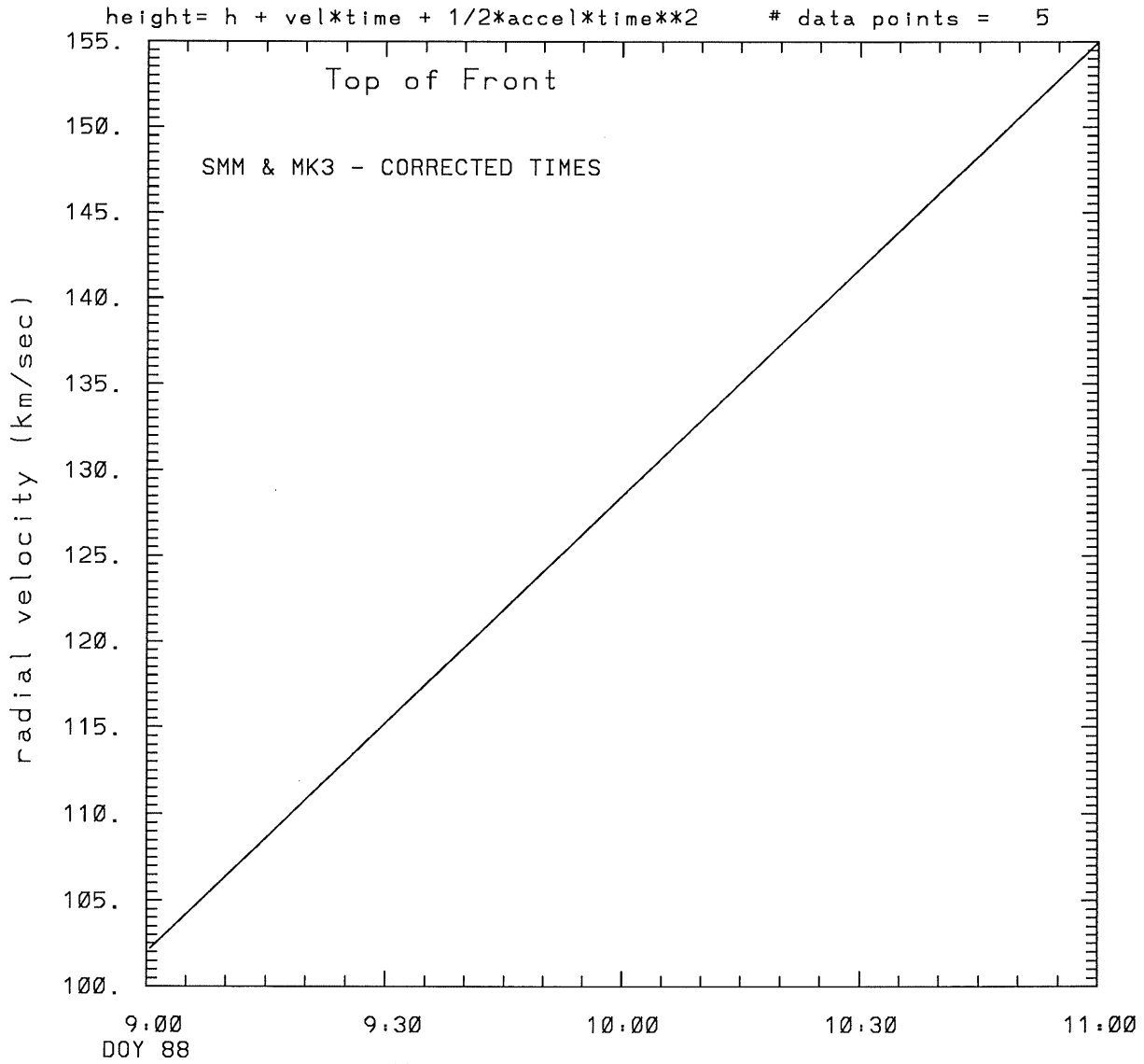


tstart=DOY 88 5: 9 from derivative=0

Event begins at 1.77 Solar Radii

radial acceleration = 0.0074 ± 0.0144 [km/sec**2]

SMM C/P 1980 DOY 88 225 +/- 0 degrees



tstart=DOY 88 5: 9 from derivative=0
Event begins at 1.77 Solar Radii
radial acceleration=0.735E-02 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	error in radii	error in radius	error in angle	error in angle	datatype
1980	88	9:10:3	2.80 +/- 0.10	225.0 +/- 0.5			SMM
1980	88	9:14:25	3.00 +/- 0.10	225.0 +/- 1.0			SMM
1980	88	9:37:53	3.20 +/- 0.10	225.0 +/- 1.0			SMM
1980	88	9:48:20	3.20 +/- 0.10	225.0 +/- 1.0			SMM
1980	88	10:50:21	4.00 +/- 0.15	225.0 +/- 1.0			SMM

Structure being measured:
Top of Front

OUTPUT:

START TIME:

Event began at $t = 0 + -0.160E+03 +/- 0.506E+01$ [minutes]
In more convenient units:
Event began at DOY 88 6:22 +/- 0.506E+01 [minutes]

Origin defined at DOY 88 9: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 127. +/- 14. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.275E+01 +/- 0.538E-01 [solar radii]
- c(2) = 0.110E-01 +/- 0.117E-02 [radii/min]
- c(2) = 0.127E+03 +/- 0.135E+02 [km/sec]
- c(3) = 0.000E+00 +/- 0.000E+00 [radii/min**2]
- c(3) = 0.000E+00 +/- 0.000E+00 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

- error in c(1)= 0.59576E-01 [radii] see Bevington pg. 114
- error in c(2)= 0.10448E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.0000E+00 +/- 0.0000E+00[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 225. +/- 0. [degrees]
a(2) = 0.000E+00 +/- 0.000E+00 [degrees/min]
a(2) = 0.000E+00 +/- 0.000E+00 [rad/sec]
a(3) = 0.000E+00 +/- 0.000E+00 [degrees/min**2]
a(3) = 0.000E+00 +/- 0.000E+00 [rad/sec**2]

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:

The TANGENTIAL velocity at 9:10 = 0.000E+00 km/sec

The TOTAL velocity at 9:10 = 127. km/sec

The TANGENTIAL velocity at 9:14 = 0.000E+00 km/sec

The TOTAL velocity at 9:14 = 127. km/sec

The TANGENTIAL velocity at 9:37 = 0.000E+00 km/sec

The TOTAL velocity at 9:37 = 127. km/sec

The TANGENTIAL velocity at 9:48 = 0.000E+00 km/sec

The TOTAL velocity at 9:48 = 127. km/sec

The TANGENTIAL velocity at 10:50 = 0.000E+00 km/sec

The TOTAL velocity at 10:50 = 127. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.46

Standard Deviation in start time measurement = 0.360E+02

Error in time = 0.13298E+02 using best fit method

See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.573E-02

Reduced Chi Squared = 0.192E-01

Chi Squared = 0.576E-01

The probability for exceeding chi square = 0.999E+00

The correlation coefficient = 0.987E+00

The probability that no LINEAR correlation exists between the variables = 0.1692E-02

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1980	88	9:10:3	2.80	+/- 0.10	225.0	+/- 0.5	SMM
1980	88	9:14:25	3.00	+/- 0.10	225.0	+/- 1.0	SMM
1980	88	9:37:53	3.20	+/- 0.10	225.0	+/- 1.0	SMM
1980	88	9:48:20	3.20	+/- 0.10	225.0	+/- 1.0	SMM
1980	88	10:50:21	4.00	+/- 0.15	225.0	+/- 1.0	SMM

Structure being measured:
Top of Front

OUTPUT:

START TIME:

tstart=DOY 88 5: 9 from derivative = 0
Event begins at 1.77 Solar Radii
Origin defined at DOY 88 9: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.735E-02 +/- 0.144E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.279E+01 +/- 0.941E-01 [solar radii]
c(2) = 0.879E-02 +/- 0.443E-02 [radii/min]
c(2) = 0.102E+03 +/- 0.514E+02 [km/sec]
c(3) = 0.190E-04 +/- 0.372E-04 [radii/min**2]
c(3) = 0.735E-02 +/- 0.144E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.11507E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.63911E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.53483E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.25696E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.42442E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.18595E-04 [radii/min**] Bevington pg 154 (8-28)

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.0000E+00 +/- 0.0000E+00[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 225. +/- 0. [degrees]
a(2) = 0.000E+00 +/- 0.000E+00 [degrees/min]
a(2) = 0.000E+00 +/- 0.000E+00 [rad/sec]
a(3) = 0.000E+00 +/- 0.000E+00 [degrees/min**2]
a(3) = 0.000E+00 +/- 0.000E+00 [rad/sec**2]

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:

The TANGENTIAL velocity at 9:10 = 0.000E+00 km/sec

The TOTAL velocity at 9:10 = 106. km/sec

The TANGENTIAL velocity at 9:14 = 0.000E+00 km/sec

The TOTAL velocity at 9:14 = 108. km/sec

The TANGENTIAL velocity at 9:37 = 0.000E+00 km/sec

The TOTAL velocity at 9:37 = 119. km/sec

The TANGENTIAL velocity at 9:48 = 0.000E+00 km/sec

The TOTAL velocity at 9:48 = 123. km/sec

The TANGENTIAL velocity at 10:50 = 0.000E+00 km/sec

The TOTAL velocity at 10:50 = 151. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.46

Standard Deviation in start time measurement = 0.360E+02

Value of reduced Chi Squared returned from nllst2 = 0.703E-02

Reduced Chi Squared = 0.205E-01

Chi Squared = 0.410E-01

The probability for exceeding chi square = 0.993E+00

For a second order fit 3 correlation coefficients are given:

(Using equation of motion: $r = a + bt + at^{**2}$)

The correlation between the data and the term linear in time = 0.8218E+00

The correlation between the data and the time**2 term = 0.7661E+00

The correlation between the data and the complete equation of motion = 0.9624E+00

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]